

REMARKS

This Amendment is being filed in response to the Office Action dated July 13, 2005. For the following reasons this application should be allowed and the case passed to issue. No new matter is raised by this amendment. Support for the amendment to claim 22 and new claim 23 is found in the specification at page 16, line 4 to page 17, line 22, and Figure 5. Figure 5 illustrates that the fourth pad (16_{X0}) is formed adjacent an outer periphery of the another edge (along the X'-X direction) and that the connecting wire (46) is in the second semiconductor chip (26) spaced apart from the top surface of the second semiconductor chip.

Claims 10 and 13-23 are pending in this application. Claims 1-9, 11, and 12 have been previously cancelled. Claims 10 and 13-21 have been allowed. Claim 22 has been rejected. Claim 22 has been amended. New claim 23 has been added.

Claim Rejections Under 35 U.S.C. § 102

Claim 22 is rejected under 35 U.S.C. § 102(e) as being anticipated by Fukui et al. This rejection is traversed, and reconsideration and withdrawal thereof respectfully requested. The following is a comparison between the invention as claimed and the cited prior art.

An aspect of the invention, per claim 22, is a semiconductor device comprising a first semiconductor chip having a first pad and a second semiconductor chip having a second pad, a third pad, and a connecting wire electrically connecting the second pad with the third pad. A circuit board has a fourth pad. A first bonding wire connects the first pad and the second pad. A second bonding wire connects the third pad and the fourth pad. The connecting wire is formed in the second semiconductor chip. The second pad is formed on a top surface of the second semiconductor chip, beside its one edge. The third pad is formed on a top surface of the second

semiconductor chip, beside its another edge. The fourth pad is formed adjacent an outer periphery of the another edge.

Another aspect of the invention, per claim 23, is a semiconductor device comprising a second pad and third pad formed on a top surface of the second semiconductor chip with a connecting wire electrically connecting the second pad with the third pad. The connecting wire is formed in the second semiconductor chip, spaced apart from the top surface of the second semiconductor chip.

The Examiner asserted that Fukui et al. disclose a semiconductor device (Figs. 7b, 8b, and 9b) comprising a wiring substrate/circuit board, a first semiconductor chip (2) having a first electrode pad (17b), a second semiconductor chip (1) having a second electrode pad (17a), a fourth pad (13) on the wiring substrate/circuit board, first and second bonding wires (7), and connecting wire between the second and third pads (as shown in Fig. 9b).

Fukui et al. do not anticipate the claimed semiconductor device because Fukui et al. do not disclose the connecting wire formed **in** the second semiconductor chip, the second pad formed on a top surface of the second semiconductor chip, beside its one edge, the third pad formed on a top surface of the second semiconductor chip, beside its another edge, and the fourth pad formed adjacent an outer periphery of the another edge, as required by claim 22.

Furthermore, Fukui et al. do not disclose the connecting wire formed **in** the second semiconductor chip, spaced apart from the top surface of the second semiconductor chip, as required by claim 23. As illustrated in Fig. 9(b) Fukui et al. disclose that the Examiner asserted connecting wire is formed **on** the top surface of the second semiconductor chip, not **in** the second semiconductor chip as required by claims 22 and 23. Claim 23 additionally requires that the connecting wire is spaced apart from the top surface of the semiconductor chip. Claim 22 is

further distinguishable over Fukui et al. because Fukui et al. do not disclose a circuit board having a fourth pad formed adjacent an outer periphery of the another edge, as required by claim 22. Rather, Fukui et al. disclose two pads connected through a connecting wire formed **on the top surface** of the semiconductor chip **each arranged beside one edge** of the semiconductor chip. According to claims 22 and 23, the connecting wire is formed **in** the semiconductor chip. This inner-layered connecting wire allows for the free arrangement of the two pads, which is not disclosed in Fukui et al. Fukui et al., further, fail to disclose the connection pads arranged beside different edges and connected through a connecting wire.

The factual determination of lack of novelty under 35 U.S.C. § 102 requires the disclosure in a single reference of each element of a claimed invention. *Helifix Ltd. v. Blok-Lok Ltd.*, 208 F.3d 1339, 54 USPQ2d 1299 (Fed. Cir. 2000); *Electro Medical Systems S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 32 USPQ2d 1017 (Fed. Cir. 1994); *Hoover Group, Inc. v. Custom Metalcraft, Inc.*, 66 F.3d 399, 36 USPQ2d 1101 (Fed. Cir. 1995); *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992); *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051 (Fed. Cir. 1987). Because Fukui et al. do not disclose the connecting wire formed **in** the second semiconductor chip, the second pad formed on a top surface of the second semiconductor chip, beside its one edge, the third pad formed on a top surface of the second semiconductor chip, beside its another edge, and the fourth pad formed adjacent an outer periphery of the another edge, as required by claim 22, and the connecting wire formed **in** the second semiconductor chip, spaced apart from the top surface of the second semiconductor chip, as required by claim 23, Fukui et al. do not anticipate claims 22 and 23.

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Applicants further submit that Fukui et al. do not suggest the claimed semiconductor device.

In light of the amendments and remarks above, this application should be allowed and the case passed to issue. If there are any questions regarding this Amendment or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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